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TRANSMITTAL SLIP | DATE 22 Mar 82

TO: [redacted] Energy Branch/OGI

ROOM NO. 4G28 | BUILDING Hqs.

REMARKS:

FYI -- from Bill Martin.

FROM: Harry Rowen, C/NIC

ROOM NO. 7E62 | BUILDING hqs. [redacted]

FORM NO. 1 FEB 55 241 REPLACES FORM 36-8 WHICH MAY BE USED. (47)

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AIDE MEMOIRE ON EUROPEAN GAS PROSPECTS

1. There is a wide range of views as to the future level of gas demand in Continental Europe ranging from 185 to 300 bcm per year by the end of the century compared to the 160 bcm today.

2. Exports of Dutch gas are foreseen to steadily decline between now and the end of the century leaving a significant gap to be filled by a combination of Soviet, North Africa, Middle East and Norwegian gas. Should one or more of these alternatives not be available then the others would be called upon to contribute a greater share.

3. Limited Soviet Gas. Should the objective be to limit Soviet gas to 10% of total European gas demand (about the level of existing gas purchases), then major efforts would be required to more than double Norwegian gas, increase North African imports and to temporarily slow the rate of the Dutch phase out of their gas exports. In higher demand cases, U.S. coal could also make a contribution.

4. Existing Soviet Plus Urengoi Gas. It is estimated that with completion of the proposed Siberian pipeline, Soviet gas would meet about 25% of Continental gas demand. Our studies show that this amount of Soviet gas, coupled with rapid development of Norwegian reserves and modest North African imports, would provide a balanced European gas market to the year 2000.

5. High Soviet Dependency. Should Norwegian and/or North African production be constrained and European demand grow rapidly then the Soviets would have the opportunity to dramatically increase their share of the European market -- to as much as half of all European gas supplies by the end of the century.

6. The key to reducing European dependency on the Soviet Union is to ensure that other potential supplies are developed as rapidly as possible.

7. Algeria, Nigeria and Cameroon could provide as much as 20-40 bcm annually of additional gas to Western Europe. However, several factors (high front end investment, high price, government policy) may prohibit full development of the potential.

8. Middle Eastern producers (especially Qatar) could conceivably supply European markets, but competition from the Japanese and very high prices could reduce the European share of their exports.

9. Within the OECD, Norway emerges as the largest potential exporter after 1990. Reserves are immense, but long lead times to develop fields and transportation systems are likely to prohibit significant additional Norwegian supplies to the Continent before the early 1990s. But by the end of the century, the Norwegians could double their present exports and contribute about the same magnitude as Soviet deliveries (assuming the Siberian pipeline is built). The Norwegians could fill much of the potential shortfall wedge illustrated in the attached visual. Lead times for some fields could be reduced if the Norwegians could use the UK as a conduit for shipping supplies to the Continent.

10. Given this outlook, it is essential that the Europeans continue to seek diversification of gas supplies and to substitute coal for gas in those areas where it is economically feasible (industry and electrical generation).

11. Even with extensive Norwegian development if demand grows rapidly, non-European sources of supply could provide half of Europe's total gas needs by the end of the century. Security of supply should therefore be given the highest attention. Such a degree of reliance on both the Soviet Union and North African producers presents a major problem in terms of reliability of gas supplies. It is essential that the European governments address the issue of gas security -- from a European wide perspective -- to ensure that political, technical and/or accidental events do not put them into a vulnerable position.

Attachment

Continental Europe: Natural Gas Supply and Demand Forecast 1980–2000